

In the Claims:

1-33. (Cancel).

34. (New) A method for treating hydrocarbonaceous feedstock to produce hydrogen, electricity, and one or more liquid hydrocarbon product, the method comprising:

- a) subjecting hydrocarbonaceous feedstock to hydrotreating hydrogen in the presence of supported catalyst under hydrotreating conditions effective to produce hydrotreated product comprising one or more liquid hydrocarbon product;
- b) subjecting hydrotreated product to hydrogen production conditions effective to produce hydrogen product and hydrogen production remainder;
- c) subjecting a first part of the hydrogen product to electricity generating conditions effective to produce electricity; and,
- d) recycling a second part of the hydrogen product as hydrotreating hydrogen.

35. (New) The method of claim 34 further comprising:

recovering one or more liquid hydrocarbon product from the hydrotreated product, leaving hydrotreated product remainder; and  
subjecting hydrotreated product remainder to the hydrogen production conditions.

36. (New) The method of claim 35 further comprising providing hydrocarbonaceous feedstock comprising a fraction having a boiling point range the same as or higher than the one or more liquid hydrocarbon product.

37. (New) The method of claim 36 wherein the hydrotreated product has a boiling point range different from the boiling point range of the hydrocarbonaceous feedstock.

38. (New) The method of claim 37 further comprising providing hydrocarbonaceous feedstock having a boiling point range of from about ambient to about 650 °C. at standard conditions comprising 20 °C and 1 atmosphere.

39. (New) The method of claim 37 further comprising providing hydrocarbonaceous feedstock having a 90% boiling point range of from about 400°C to about 600 °C at standard conditions.

40. (New) The method of claim 34 further comprising providing hydrocarbonaceous feedstock comprising 5 %wt. sulfur or less.

41. (New) The method of claim 39 further comprising providing hydrocarbonaceous feedstock comprising 5 %wt. sulfur or less.

42. (New) The method of claim 37 wherein the fraction is from about 5 %wt to about 40 %wt. of the hydrocarbonaceous feedstock.

43. (New) The method of claim 42 wherein the fraction has a boiling point range higher than the one or more liquid hydrocarbon product.
44. (New) The method of claim 34 wherein the one or more liquid hydrocarbon product is selected from the group consisting of kerosene and gas oil.
45. (New) The method of claim 43 wherein the one or more liquid hydrocarbon product is selected from the group consisting of kerosene and gas oil.
46. (New) The method of claim 35 wherein the hydrogen production conditions comprise catalytic oxidation conditions effective to produce hydrogen product and carbon (di) oxide.
47. (New) The method of claim 46 wherein the catalytic oxidation conditions comprise catalytic partial oxidation conditions.
48. (New) The method of claim 45 wherein the hydrogen production conditions comprise catalytic oxidation conditions effective to produce hydrogen product and carbon (di) oxide.
49. (New) The method of claim 48 wherein the catalytic oxidation conditions comprise catalytic partial oxidation conditions.
50. (New) The method of claim 34 wherein said electricity generating conditions comprise feeding at least some of the hydrogen product to a fuel cell under fuel cell conditions effective to produce electricity.
51. (New) The method of claim 48 wherein said electricity generating conditions comprise feeding at least some of the hydrogen product to a fuel cell under fuel cell conditions effective to produce electricity.
52. (New) The method of claim 51 wherein the fuel cell conditions produce an amount of electricity in excess of a total amount of electricity needed for the method.
53. (New) The method of claim 51 wherein the fuel cell conditions produce fuel cell steam, the hydrogen production conditions comprising subjecting hydrotreated product to fuel cell steam.
54. (New) The method of claim 51 wherein the catalytic oxidation conditions comprise watergas-shift conditions effective convert hydrocarbonaceous feedstock and watergas-shift water to one or more catalytic oxidation product selected from the group consisting of kerosene and gas oil.
55. (New) The method of claim 54 wherein the hydrotreating conditions produce hydrogen sulfide, the method further comprising converting the hydrogen sulfide into elemental sulfur.
56. (New) The method of claim 34 wherein the supported catalyst comprises zeolite beta.

57. (New) The method of claim 34 wherein the supported catalyst is effective to convert at least 90 % wt. per pass of hydrocarbonaceous feedstock to one or more liquid hydrocarbon product.
58. (New) The method of claim 54 wherein the supported catalyst comprises zeolite beta.
59. (New) The method of claim 54 wherein the supported catalyst is effective to convert at least 90 % wt. per pass of the hydrocarbonaceous feedstock to one or more liquid hydrocarbon product.
60. (New) The method of claim 34 wherein the hydrotreating conditions comprise a temperature of from about 100°C to about 550 °C; and, a pressure of 400 atmospheres or less.
61. (New) The method of claim 54 wherein the hydrotreating conditions comprise a temperature of from about 100°C to about 550 °C; and, a pressure of 400 atmospheres or less.
62. (New) The method of claim 59 wherein the hydrotreating conditions comprise a temperature of from about 100°C to about 550 °C; and, a pressure of 400 atmospheres or less.
63. (New) The method of claim 62 wherein the method requires a total amount of hydrogen and a total quantity of electricity, and the catalytic oxidation conditions and the fuel cell conditions generate the total amount of hydrogen or more and the total quantity of electricity or more.
64. (New) The method of claim 62 wherein the hydrotreated product further comprises lower boiling hydrocarbons containing at most 4 carbon atoms.
65. (New) The method of claim 64 further comprising separating remaining hydrotreating hydrogen from the hydrotreated product prior to subjecting at least a portion of the hydrotreated product to hydrogen production conditions.
66. (New) The method of claim 65 further comprising providing hydrocarbonaceous feedstock comprising about 3 %wt. sulfur or less.
67. (New) A method for treating hydrocarbonaceous feedstock to produce hydrogen, electricity, and one or more liquid hydrocarbon product, the method comprising:
- a) subjecting hydrocarbonaceous feedstock to hydrotreating hydrogen in the presence of supported catalyst under hydrotreating conditions effective to produce hydrotreated product comprising one or more liquid hydrocarbon product;

- b) subjecting hydrotreated product to catalytic partial oxidation conditions effective to produce catalytic partial oxidation product;
- c) subjecting catalytic partial oxidation product to watergas-shift water under watergas-shift conditions effective to produce hydrogen product and carbon dioxide;
- d) recycling a first part of the hydrogen product as hydrotreating hydrogen, the hydrotreating hydrogen being produced from no feedstocks other than the hydrocarbonaceous feedstock and watergas-shift water; and,
- e) subjecting a second part of the hydrogen product to electricity generating conditions effective to produce electricity.

68. (New) The method of claim 67 wherein the carbon dioxide is produced from no feedstocks other than the hydrocarbonaceous feedstock and the watergas-shift water.

69. (New) The method of claim 68 wherein the electricity is produced from no feedstocks other than the hydrocarbonaceous feedstock and the watergas-shift water.

70. (New) The method of claim 69 wherein the supported catalyst converts at least about 65 % wt. per pass of a fraction of the hydrocarbonaceous feedstock having a boiling point range the same as or above the one or more liquid hydrocarbon.

71. (New) The method of claim 70 wherein the hydrotreating conditions comprise a temperature of from about 250°C to about 450 °C; and a pressure of from about 10 to about 200 atmospheres.

72. (New) A method for treating hydrocarbonaceous feedstock to produce hydrogen, electricity, and one or more liquid hydrocarbon product, the method comprising:

- a) providing hydrocarbonaceous feedstock comprising about 5 %wt. sulfur or less, said hydrocarbonaceous feedstock having a boiling point of from about ambient to about 650 °C. at standard conditions comprising 20 °C and 1 atmosphere;
- b) subjecting the hydrocarbonaceous feedstock to hydrotreating hydrogen in the presence of supported catalyst comprising zeolite beta under hydrotreating conditions effective to produce hydrotreated product comprising one or more liquid hydrocarbon product selected from the group consisting of kerosene and gas oil, the hydrotreated product having a first boiling point range different from the hydrocarbonaceous feedstock, the hydrocarbonaceous feedstock comprising a fraction of from about 5 %wt. to about 40 %wt. having a second boiling point range the same as or higher than the one or more liquid hydrocarbon product;

- c) recovering at least some of the one or more liquid hydrocarbon product, leaving hydrotreated product remainder;
- d) subjecting at least some of the hydrotreated product remainder to catalytic partial oxidation conditions effective to produce catalytic partial oxidation product;
- e) subjecting catalytic partial oxidation product to watergas-shift water under watergas-shift conditions effective to convert the hydrotreated product remainder to hydrogen product and to a watergas-shift product selected from the group consisting of kerosene and gas oil;
- f) feeding a first part of the hydrogen product to a fuel cell under electricity generating conditions effective to produce electricity; and,
- g) recycling a second part of the hydrogen product as hydrotreating hydrogen.

73. (New) The method of claim 72 wherein the supported catalyst converts at least 90 % wt. per pass of hydrocarbonaceous feedstock to the one or more liquid hydrocarbon product.

74. (New) The method of claim 73 wherein the hydrotreating conditions are effective to produce hydrogen sulfide, the method further comprising converting the hydrogen sulfide into elemental sulfur.

75. (New) The method of claim 74 further comprising providing hydrocarbonaceous feedstock having a 90% boiling point range of from about 400°C to about 600 °C at standard conditions.

76. (New) The method of claim 75 wherein the fuel cell conditions produce fuel cell steam, the watergas-shift water comprising fuel cell steam.

77. (New) The method of claim 76 wherein the hydrotreating conditions comprise a temperature of from about 100°C to about 550 °C and a pressure of 400 atmospheres or less.

78. (New) The method of claim 77 wherein the method requires a total amount of hydrogen and a total quantity of electricity, and the watergas-shift conditions and the fuel cell conditions generate the total amount of hydrogen or more and the total quantity of electricity or more.

79. (New) The method of claim 78 wherein the hydrotreated product comprises hydrocarbons containing at most 4 carbon atoms.

80. (New) The method of claim 79 further comprising separating remaining hydrotreating hydrogen from the hydrotreated product before subjecting at least a portion of hydrotreated product to the hydrogen production conditions.

81. (New) The method of claim 80 wherein the hydrocarbonaceous feedstock comprises about 3 %wt sulfur or less.

- a) subjecting hydrocarbonaceous feedstock to hydrotreating hydrogen under hydrotreating conditions comprising supported zeolite catalyst effective to produce hydroprocessed product;
  - b) subjecting at least a portion of the hydrotreated product to hydrogen production conditions effective to produce hydrogen product;
  - c) subjecting a first part of the hydrogen product to electricity generating conditions effective to produce electricity; and,
  - d) recycling a second part of the hydrogen product as hydrotreating hydrogen.
83. (New) The method of claim 82 further comprising:  
recovering one or more liquid hydrocarbon product from the hydrotreated product,  
leaving hydrotreated product remainder; and  
subjecting the hydrotreated product remainder to the hydrogen production conditions.
84. (New) The method of claim 82 wherein the hydroprocessed product is selected from the group consisting of kerosene and gas oil.
85. (New) The method of claim 83 wherein the hydroprocessed product is selected from the group consisting of kerosene and gas oil.
86. (New) The method of claim 82 wherein the hydrogen production conditions comprise catalytic oxidation conditions effective to produce hydrogen product and carbon (di) oxide.
87. (New) The method of claim 86 wherein the catalytic oxidation conditions comprise catalytic partial oxidation conditions.
88. (New) The method of claim 85 wherein the hydrogen production conditions comprise catalytic oxidation conditions effective to produce hydrogen product and carbon (di) oxide.
89. (New) The method of claim 88 wherein the catalytic oxidation conditions comprise catalytic partial oxidation conditions.
90. (New) The method of claim 82 wherein said electricity generating conditions comprise feeding at least some of the hydrogen product to a fuel cell under fuel cell conditions effective to produce electricity.
91. (New) The method of claim 88 wherein said electricity generating conditions comprise feeding at least some of the hydrogen product to a fuel cell under fuel cell conditions effective to produce electricity.
92. (New) The method of claim 91 wherein the fuel cell conditions produce fuel cell steam, the hydrogen production conditions comprising subjecting hydrotreated product to fuel cell steam.
93. (New) The method of claim 82 wherein the hydrotreating conditions comprise

a temperature of from about 100°C to about 550 °C; and,  
a pressure of 400 atmospheres or less.

94. (New) The method of claim 92 wherein the hydrotreating conditions comprise  
a temperature of from about 100°C to about 550 °C; and,  
a pressure of 400 atmospheres or less.

95. (New) The method of claim 94 wherein the method requires a total amount of hydrogen  
and a total quantity of electricity, and the catalytic oxidation conditions and the fuel cell  
conditions generate the total amount of hydrogen or more and the total quantity of electricity or  
more.

96. (New) The method of claim 82 further comprising separating remaining hydrotreating  
hydrogen from the hydrotreated product prior to subjecting at least a portion of the hydrotreated  
product to hydrogen production conditions.

97. (New) The method of claim 92 further comprising separating remaining hydrotreating  
hydrogen from the hydrotreated product prior to subjecting at least a portion of the hydrotreated  
product to hydrogen production conditions.

98. (New) The method of claim 82 wherein the supported zeolite catalyst is zeolite beta.